REMARKS

Applicant thanks the Examiner for the kind allowance of Claims 1-7, 10, and 11.

Claims 8 and 9 would be allowable if a rejection under 35 U.S.C. § 112, second paragraph is overcome.

The Examiner explained that Claim 8 is rejected because the group of materials to be used as the base is indefinite. For example, the Examiner said that white petrolatum is the same as gelation hydrocarbon. The Examiner said that Macrogol is a hydrophilic ointment base. The Examiner questioned if there are any differences between white ointment base, and simple ointment base. Claim 8 has been amended to delete "Macrogol ointment base" and to change "gelation hydrocarbon" to --hydrocarbon gel--. Otherwise, the rejection is respectfully traversed.

The various members of the Markush group will be discussed in order:

1. liquid paraffin - it is believed that the Examiner did not question this element;

2. white petrolatum - a copy of page 1005 of JP XIV, "The Japanese Pharmacopoeia", is enclosed showing that this is art accepted terminology;

3. purified lanolin - it is believed that the Examiner did not question this element;

4. gelation hydrocarbon - a copy of entry 109105 from the "Handbook of Pharmaceutical Excipients" is enclosed along with a translation. This book

shows that "Gelation Hydrocarbon" is a product of Maruishi Pharmaceutical Co., Ltd., and is "hydrocarbon gel". It is not white petrolatum, but is an ointment made by gelling liquid paraffin with polyethylene.

5. polyethylene glycol - it is believed that the Examiner did not question this element. "Polyethylene glycol" has been changed to --a polyethylene glycol-- in order that the language "and mixtures thereof" of the claim would include mixtures of polyethylene glycols of different molecular weights;

6. hydrophilic ointment base - a copy of page 940 of JP XIV, "The Japanese Pharmacopoeia", is enclosed showing that this is art accepted terminology and is a mixture of various ingredients;

7. white ointment base - a copy of page 1080 of JP XIV, "The Japanese Pharmacopoeia", is enclosed showing that this is art accepted terminology and is a mixture of various ingredients;

8. simple ointment base - a copy of page 1052 of JP XIV, "The Japanese Pharmacopoeia", is enclosed showing that this is art accepted terminology and is different from other compositions;

9. Macrogol ointment base - a copy of page 968 of JP XIV, "The Japanese Pharmacopoeia", is enclosed showing that this is a composition of polyethylene glycol 4000 and polyethylene glycol 400. Thus, the term has been deleted from Claim 8 because it is believed that " polyethylene glycol" combined with "and mixtures thereof" accomplishes the same purpose.

As for claim 9, the Examiner said that certain compounds can serve different purposes. For example, glycerol may be an alcohol but may also be a stabilizer. This rejection is respectfully traversed.

Even though a compound may serve different functions, it is erroneous to say that that renders Claim 9 indefinite. Each of the broad elements recited in the group of claim 9 is clear and distinct from the others and the fact that there may be some compounds which could serve different functions is irrelevant.

The Examiner is, therefore, respectfully requested to withdraw the rejection under 35 U.S.C. § 112, second paragraph.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #01078150666).

Respectfully submitted,

September 22, 2003

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JP XIV

THE JAPANESE PHARMACOPOEIA

第十四改正 日本薬局方

Official from April 1.2001

English Version

CONTENTS

Notice;This English Version of the Japanese Pharmacopoeia, Fourteenth Edition is published to meet the needs of the non-Japanese speaking people. When and if any discrepancy arises between the Japanese original and its English translation,the former is authentic.

The Japanese Pharmacopoeia documents are in Portable Document Format (PDF). To view or print these documents, you must use the Adobe Acrobat Reader.

Last updated:19,December 2001,

mail to jp14e@nihs.go.jp

JP Japanese Pharmacopoeia

sample solution. Dissolve 0.01 g each of hydrocortisone acetate and diphenhydramine in 10 mL each of methanol, and use these solutions as standard solutions (1) and (2). Perform the test with the sample solution and standard solutions (1) and (2) as directed under the Thin-layer Chromatography. Spot 5 μL each of these solutions on a plate of silica gel with a complex fluorescent indicator for thin-layer chromatography. Develop the plate with a mixture of ethyl acetate and diethyl ether (4:1) to a distance of about 10 cm, and air-dry the plate. Examine under ultraviolet light (broad spectrum wavelength): two spots from the sample solution show the same *Rf* value as the corresponding spots from standard solutions (1) and (2).

Containers and storage Containers—Tight containers.
Storage—Light-resistant.

Hydrogenated Oil

硬化油

Hydrogenated Oil is the fat obtained by hydrogenation of fish oil or of other oils originating from animal or vegetable.

Description Hydrogenated Oil occurs as a white mass or powder and has a characteristic odor and a mild taste.

It is freely soluble in diethyl ether, very slightly soluble in ethanol (95), and practically insoluble in water.

The oil obtained by hydrogenation of castor oil is slightly soluble in diethyl ether, very slightly soluble in ethanol (95), and practically insoluble in water.

Acid value Not more than 2.0.

Purity (1) Moisture and coloration—Hydrogenated Oil (5.0 g), melted by heating on a water bath, forms a clear liquid, from which no water separates. In a 10-mm thick layer of the liquid, it is colorless or slightly yellow.

(2) Alkali—To 2.0 g of Hydrogenated Oil add 10 mL of water, melt by heating on a water bath, and shake vigorously. After cooling, add 1 drop of phenolphthalein TS to the separated water layer: no color develops.

(3) Chloride—To 1.5 g of Hydrogenated Oil add 30 mL of ethanol (95), boil for 10 minutes under a reflux condenser, and filter after cooling. To 20 mL of the filtrate add 5 drops of a solution of silver nitrate in ethanol (95) (1 in 50): the turbidity of the solution does not exceed that of the following control solution.

Control solution: To 1.0 mL of 0.01 mol/L hydrochloric acid VS add ethanol (95) to make 20 mL, then add 5 drops of a solution of silver nitrate in ethanol (95) (1 in 50).

(4) Heavy metals—Heat 2.0 g of Hydrogenated Oil with 5 mL of dilute hydrochloric acid and 10 mL of water on a water bath for 5 minutes with occasional shaking. After cooling, filter, and make 5 mL of the filtrate weakly alkaline with ammonia TS, then add 3 drops of sodium sulfide TS: the solution remains unchanged.

(5) Nickel—Place 5.0 g of Hydrogenated Oil in a quartz or porcelain crucible, heat slightly with caution at the beginning, and, after carbonization, incinerate by strong heating (500 ± 20°C). Cool, add 1 mL of hydrochloric acid, evaporate on a water bath to dryness, dissolve the residue in 3 mL of dilute hydrochloric acid, and add 7 mL of water. Then add 1 mL of bromine TS and 1 mL of a solution of citric acid monohydrate (1 in 5), make alkaline with 5 mL of ammonia TS, and cool in running water. To this solution add 1 mL of dimethylglyoxime TS, add water to make 20 mL, and use this solution as the test solution. Allow to stand for 5 minutes: the solution has no more color than the following control solution.

Control solution: Evaporate 1 mL of hydrochloric acid on a water bath to dryness, add 1 mL of Standard Nickel Solution and 3 mL of dilute hydrochloric acid, and add 6 mL of water. Then proceed as directed in the test solution, add water to make 20 mL, and allow to stand for 5 minutes.

Residue on ignition Not more than 0.10% (5 g).

Containers and storage Containers—Well-closed containers.

Hydrophilic Ointment

親水軟膏

Method of preparation

White Petrolatum	250 g
Stearyl Alcohol	200 g
Propylene Glycol	120 g
Polyoxyethylene hydrogenated castor oil 60	40 g
Glycerin Monostearate	10 g
Methyl Parahydroxybenzoate	1 g
Propyl Parahydroxybenzoate	1 g
Purified Water	a sufficient quantity
	To make 1000 g

Melt White Petrolatum, Stearyl Alcohol, polyoxyethylene hydrogenated castor oil 60 and Glycerin Monostearate by heating on a water bath, stir, and keep temperature of the mixture at about 75°C. To Propylene Glycol add Methyl Parahydroxybenzoate and Propyl Parahydroxybenzoate, melt by warming if necessary, dissolve in Purified Water, and warm to about 75°C. Add this solution to the above mixture, stir to form emulsion, cool, and stir thoroughly until it congeals.

Description Hydrophilic Ointment is white in color. It has a slight, characteristic odor.

Containers and storage Containers—Tight containers.

Hydroxypropylcellulose

ヒドロキシプロピルセルロース

Hydroxypropylcellulose is a hydroxypropyl ether of cellulose.

Hydroxypropylcellulose, when dried, contains not less than 53.4% and not more than 77.5% of hydrox-

Titrate with 0.5 mol/L sodium hydroxide VS until a light red color remains for not less than 15 seconds. Perform a blank determination in the same manner.

$$\text{Average molecular mass} = \frac{\text{mass (g) of sample} \times 4000}{a - b}$$

a: Volume (mL) of 0.5 mol/L sodium hydroxide VS consumed in the blank determination.
b: Volume (mL) of 0.5 mol/L sodium hydroxide VS consumed in the test of the sample.

Average molecular mass is between 7300 and 9300.

Water Not more than 1.0% (2 g, direct titration).

Residue on ignition Not more than 0.25% (1 g).

Containers and storage Containers—Well-closed containers.

Macrogol 20000

Polyethylene Glycol 20000

マクロゴール 20000

Macrogol 20000 is a polymer of ethylene oxide and water, represented by the formula $HOCH_2(CH_2OCH_2)_nCH_2OH$, in which the value of *n* lies between 340 and 570.

Description Macrogol 20000 occurs as white, paraffin-like flakes or powder. It is ordorless or has a faint, characteristic odor.

It is freely soluble in water and in pyridine, and practically insoluble in methanol, in ethanol (95), in anhydrous diethyl ether, in petroleum benzine and in macrogol 400.

Congealing point: 56 – 64°C

Identification Dissolve 0.05 g of Macrogol 20000 in 5 mL of dilute hydrochloric acid, add 1 mL of barium chloride TS, shake, and filter, if necessary. To the filtrate add 1 mL of a solution of phosphomolybdic acid *n*-hydrate (1 in 10): a yellow-green precipitate is formed.

pH Dissolve 1.0 g of Macrogol 20000 in 20 mL of water: the pH of this solution is between 4.5 and 7.5.

Purity (1) Clarity and color of solution—Dissolve 5.0 g of Macrogol 20000 in 50 mL of water: the solution is clear and colorless.

(2) Acid—Dissolve 5.0 g of Macrogol 20000 in 20 mL of neutralized ethanol by warming, cool, and add 0.20 mL of 0.1 mol/L sodium hydroxide VS and 1 drop of phenolphthalein TS: the color of the solution is red.

Average molecular mass Weigh accurately about 15.0 g of Macrogol 20000, transfer to an about 200-mL glass-stoppered pressure bottle, add about 25 mL of pyridine, dissolve by warming, and allow to cool. Separately, pipet 300 mL of freshly distilled pyridine into a 1000-mL light-resistant glass-stoppered bottle, add 42 g of phthalic anhydride, dissolve with vigorous shaking, and allow to stand for 16 hours or more. Pipet 25 mL of this solution, transfer to the former pressure bottle, stopper the bottle tightly, wrap it securely with strong cloth, and immerse in a water bath, having a temperature of 98 ± 2°C, to the same depth as the mixture in the bottle. Maintain the temperature of the bath at 98 ± 2°C for 60 minutes. Remove the bottle from the bath, and allow to cool in air to room temperature. Add exactly 50 mL of 0.5 mol/L sodium hydroxide VS and 5 drops of a solution of phenolphthalein in pyridine (1 in 100). Titrate with 0.5 mol/L sodium hydroxide VS until a light red color remains for not less than 15 seconds. Perform a blank determination.

$$\text{Average molecular mass} = \frac{\text{mass (g) of sample} \times 4000}{a - b}$$

a: Volume (mL) of 0.5 mol/L sodium hydroxide VS used in the blank determination.
b: Volume (mL) of 0.5 mol/L sodium hydroxide VS used in the test of the sample.

Average molecular mass is between 15000 and 25000.

Water Not more than 1.0% (2 g, direct titration).

Residue on ignition Not more than 0.25% (1 g).

Containers and storage Containers—Well-closed containers.

Macrogol Ointment

Polyethylene Glycol Ointment

マクロゴール軟膏

Method of preparation

Macrogol 4000	500 g
Macrogol 400	500 g
To make	1000 g

Melt Macrogol 4000 and Macrogol 400 by warming on a water bath at 65°C, and mix well until it congeals. Less than 100 g of Macrogol 4000 or Macrogol 400 may be replaced by an equal amount of Macrogol 400 or Macrogol 4000 to prepare 1000 g of a proper soft ointment.

Description Macrogol Ointment is white in color. It has a faint, characteristic odor.

Identification Dissolve 0.05 g of Macrogol Ointment in 5 mL of dilute hydrochloric acid, add 1 mL of barium chloride TS, shake, filter if necessary, and add 1 mL of a solution of phosphomolybdic acid *n*-hydrate (1 in 10) to the filtrate: a yellow-green precipitate is formed.

Containers and storage Containers—Tight containers.

(6) Ammonium—Perform the test as directed under the Ammonium Limit Test, using 30 mL of Sterile Purified Water as the test solution. Prepare the control solution as follows: to 0.15 mL of Standard Ammonium Solution add purified water for ammonium limit test to make 30 mL, and proceed in the same manner as the test solution (not more than 0.05 mg/L).

(7) Heavy metals—To 40 mL of Sterile Purified Water add 2 mL of dilute acetic acid and 1 drop of sodium sulfide TS: no change occurs.

(8) Potassium permanganate-reducing substances—To 100 mL of Sterile Purified Water add 10 mL of dilute sulfuric acid, boil, add 0.10 mL of 0.02 mol/L potassium permanganate VS, and boil again for 10 minutes: the red color does not disappear.

(9) Residue on evaporation—Evaporate 100 mL of Sterile Purified Water on a water bath to dryness, and dry the residue at 105°C for 1 hour: the mass of the residue is not more than 1.0 mg.

Sterility Take 500 mL of Sterile Purified Water, and perform the test by the Membrane filtration method: it meets the requirements of the Sterility Test.

Containers and storage Containers—Containers used at the time of sterilization.

Storage—Protected from microbial contamination.

Weil's Disease and Akiyami Combined Vaccine

ワイル病秋やみ混合ワクチン

Weil's Disease and Akiyami Combined Vaccine is a liquid for injection containing inactivated Weil's disease leptospira, Akiyami A leptospira, Akiyami B leptospira and Akiyami C leptospira. The product lacking more than a kind of Akiyami leptospira may be prepared, if necessary.

It conforms to the requirements of Weil's Disease and Akiyami Combined Vaccine in the Minimum Requirements for Biological Products.

Description Weil's Disease and Akiyami Combined Vaccine is a white-turbid liquid.

Wheat Starch

Amylum Tritici

コムギデンプン

Wheat Starch consists of the starch granules obtained from the seeds of *Triticum aestivum* Linné (*Gramineae*).

Description Wheat Starch occurs as white masses or powder. It is odorless and tasteless.

Under a microscope, Wheat Starch appears as spherical or lenticular simple grains in various sizes ranging from 5 to 60 μm, mostly 25 to 35 μm. Hilum and striation are indistinct.

It is practically insoluble in water and in ethanol (95).

Identification (1) To 1 g of Wheat Starch add 50 mL of water, boil, and allow to cool: a turbid, neutral and pasty liquid is formed.

(2) To a portion of Wheat Starch add iodine TS: a dark blue-purple color is produced.

Purity Foreign matter—Under a microscope, Wheat Starch does not contain starch grains of any other origin. It may contain a minute quantity, if any, of fragments of the tissue of the original plant.

Loss on drying Not more than 15.0% (6 hours).

Total ash Not more than 1.0%.

White Ointment

白色軟膏

Method of preparation

Purified Lanolin	50 g
White Beeswax	50 g
White Petrolatum	a sufficient quantity
	To make 1000 g

Prepare as directed under Ointments, with the above materials.

Description White Ointment is white in color. It has a slight, characteristic odor.

Containers and storage Containers—Tight containers.

Whole Human Blood

人全血液

Whole Human Blood is a liquid for injection which is prepared by mixing human blood cells and an anticoagulant solution for storage.

It conforms to the requirements of Whole Human Blood in the Minimum Requirements for Biological Products.

Description Whole Human Blood is a deep red liquid from which the erythrocytes settle upon standing, leaving a yellow supernatant layer. A gray layer which mainly consists of leucocytes may appear on the surface of the settled erythrocyte layer. The supernatant layer may become turbid in the presence of fat, or may show the faint color of hemoglobin.

Method of preparation

Silver Protein	30 g
Glycerin	100 mL
Mentha Water	a sufficient quantity
	To make 1000 mL

Dissolve and mix the above ingredients.

Description Silver Protein Solution is a clear, brown liquid, having the odor of mentha oil.

Identification (1) To 1 mL of Silver Protein Solution add 10 mL of ethanol (95), mix, and add 2 mL of sodium hydroxide TS. Add immediately 1 mL of a solution of copper (II) chloride dihydrate in ethanol (95) (1 in 10), shake, and filter: the filtrate is blue in color (glycerin).

(2) To 3 mL of Silver Protein Solution add water to make 10 mL, add 2 mL of dilute hydrochloric acid, shake frequently for 5 minutes, and filter. Add 5 mL of a solution of sodium hydroxide (1 in 10) to the filtrate, and add 2 mL of diluted copper (II) sulfate TS (2 in 25): a purple color develops (silver protein).

(3) To 5 mL of the sample solution obtained in (2) add iron (III) chloride TS dropwise: a brown precipitate is formed (silver protein).

(4) Place 3 mL of Silver Protein Solution in a crucible, heat cautiously, and evaporate almost to dryness. Then incinerate gradually by strong heating, dissolve the residue in 1 mL of nitric acid by warming, and add 10 mL of water: the solution responds to the Qualitative Tests (1) for silver salt.

Assay Pipet 25 mL of Silver Protein Solution into a 250-mL Kjeldahl flask, and heat cautiously until a white gas of glycerin is evolved. After cooling, add 25 mL of sulfuric acid, cover the flask with a funnel, and heat gently for 5 minutes. After cooling, drop gradually 5 mL of nitric acid, heat with occasional shaking in a water bath for 45 minutes, and cool. Add 2 mL of nitric acid, boil gently, and repeat this operation until the solution becomes colorless upon cooling. Transfer cautiously the cooled content in the flask into a 500-mL conical flask with 250 mL of water. Boil gently for 5 minutes, cool, and titrate with 0.1 mol/L ammonium thiocyanate VS (indicator: 3 mL of ammonium iron (III) sulfate TS).

Each mL of 0.1 mol/L ammonium thiocyanate VS
= 10.787 mg of Ag

Containers and storage Containers—Tight containers.
Storage—Light-resistant.

Simple Ointment

単軟膏

Method of preparation

Yellow Beeswax	330 g
Fixed oil	a sufficient quantity
	To make 1000 g

Prepare as directed under Ointments, with the above ingredients.

Description Simple Ointment is yellow in color. It has a slight, characteristic odor.

Containers and storage Containers—Tight containers.

Simple Syrup

単シロップ

Simple Syrup is an aqueous solution of Sucrose.

Method of preparation

Sucrose	850 g
Purified Water	a sufficient quantity
	To make 1000 mL

Prepare as directed under Syrups, with the above materials.

Description Simple Syrup is a clear, colorless to pale yellow, viscous liquid.
It is odorless and has a sweet taste.

Identification (1) Evaporate Simple Syrup on a water bath to dryness. 1 g of the residue so obtained, when ignited, melts to swell, and decomposes, emitting an odor of caramel, to bulky charcoal.

(2) To 0.1 g of the residue obtained in (1) add 2 mL of dilute sulfuric acid, boil, add 4 mL of sodium hydroxide TS and 3 mL of Fehling's TS, and heat to boiling: a red to dark red precipitate is produced.

Specific gravity d_{20}^{20}: 1.310 – 1.325

Purity (1) Artificial sweetening agents—To 100 mL of Simple Syrup add 100 mL of water, shake, acidify a 50-mL portion of the solution with dilute sulfuric acid, and make another 50-mL portion alkaline with sodium hydroxide TS. To each portion add 100 mL of diethyl ether, shake, separate the diethyl ether layer, and evaporate the combined diethyl ether extract on a water bath to dryness: the residue has no sweet taste.

(2) Salicylic acid—To the residue obtained in (1) add 2 to 3 drops of dilute iron (III) chloride TS: no purple color develops.

Containers and storage Containers—Tight containers.

Sinomenium Stem

Sinomeni Caulis et Rhizoma

ボウイ

Sinomenium Stem is the climbing stem and rhizome of *Sinomenium acutum* Rehder et Wilson (*Menispermaceae*).

Description Round or elliptic sections, 0.2 – 0.4 cm in thickness, 1 – 4.5 cm in diameter; cortex on both fractured surfaces, light brown to dark brown; in xylem, grayish brown vessel portions and dark brown medullary rays lined alternately and radially; flank, dark gray, with longitudinal wrin-

less than 3 mm in diameter, contained in Perilla Herb does not exceed 3.0%.

(2) Foreign matter—The amount of foreign matter other than the stems contained in Perilla Herb does not exceed 1.0%.

Loss on drying Not more than 13.0% (6 hours).

Total ash Not more than 16.0%.

Acid-insoluble ash Not more than 2.5%.

Essential oil content Perform the test with 50.0 g of pulverized Perilla Herb as directed in Essential oil content under the Crude Drugs, provided that 1 mL of silicon resin is previously added to the sample in the flask: the volume of essential oil is not less than 0.2 mL.

Adsorbed Purified Pertussis Vaccine

沈降精製百日せきワクチン

Adsorbed Purified Pertussis Vaccine is a liquid for injection prepared by adding an aluminum salt to a liquid containing the protective antigen of *Bordetella pertussis* to make the antigen insoluble.

It conforms to the requirements of Adsorbed Purified Pertussis Vaccine in the Minimum Requirements for Biological Products.

Description Adsorbed Purified Pertussis Vaccine forms a homogeneous, white turbidity on shaking.

Adsorbed Diphtheria-Purified Pertussis-Tetanus Combined Vaccine

沈降精製百日せきジフテリア破傷風混合ワクチン

Adsorbed Diphtheria-Purified Pertussis-Tetanus Combined Vaccine is a liquid for injection consisting of a liquid containing the protective antigen of *Bordetella pertussis*, Diphtheria Toxoid and a liquid containing tetanus toxoid obtained by detoxifying the tetanus toxin with formaldehyde solution without impairing its immunogenicity, to which aluminum is added to make the antigen and the toxoids insoluble.

It conforms to the requirements of Adsorbed Diphtheria-Purified Pertussis-Tetanus Combined Vaccine in the Minimum Requirements for Biological Products.

Description Adsorbed Diphtheria-Purified Pertussis-Tetanus Combined Vaccine becomes a homogeneous, white turbid liquid on shaking.

Hydrophilic Petrolatum

親水ワセリン

Method of preparation

White Beeswax	80 g
Stearyl Alcohol or Cetanol	30 g
Cholesterol	30 g
White Petrolatum	a sufficient quantity
	To make 1000 g

Melt and mix Stearyl Alcohol or Cetanol, White Beeswax and White Petrolatum on a water bath. Add Cholesterol, and melt completely by stirring. Stop warming, and stir until the mixture congeals.

Description Hydrophilic Petrolatum is white in color. It has a slight, characteristic odor.

When mixed with an equal volume of water, it retains the consistency of ointment.

Containers and storage Containers—Tight containers.

White Petrolatum

白色ワセリン

White Petrolatum is a decolorized and purified mixture of hydrocarbons obtained from petroleum.

Description White Petrolatum is a white to pale yellow, homogeneous, unctuous mass. It is odorless and tasteless.

It is practically insoluble in water, in ethanol (95) and in ethanol (99.5).

It dissolves in diethyl ether making a clear liquid or producing slight insoluble substances.

It becomes a clear liquid when warmed.

Melting point 38 - 60°C (Method 3).

Purity (1) Color—Melt White Petrolatum by warming, and pour 5 mL of it into a test tube, and keep the content in a liquid condition: the liquid has no more color than the following control solution, when observed transversely from side against a white background.

Control solution: Add 3.4 mL of water to 1.6 mL of Ferric Chloride Colorimetric Stock Solution.

(2) Acid or alkali—To 35.0 g of White Petrolatum add 100 mL of hot water, shake vigorously for 5 minutes, and then draw off the aqueous layer. Treat the White Petrolatum layer in the same manner using two 50-mL portions of hot water. To the combined aqueous layer add 1 drop of phenolphthalein TS, and boil: no red color is produced. Further add 2 drops of methyl orange TS: no red color is produced.

(3) Heavy metals—Proceed with 1.0 g of White Petrolatum according to Method 2, and perform the test. Prepare the control solution with 3.0 mL of Standard Lead Solution (not more than 30 ppm).

(4) Arsenic—Prepare the test solution with 1.0 g of

White Petrolatum, according to Method 3, and perform the test using Apparatus B. Add 10 mL of a solution of magnesium nitrate hexahydrate in ethanol (95) (1 in 50), then add 1.5 mL of hydrogen peroxide (30), and fire to burn (not more than 2 ppm).

(5) Sulfur compound—To 4.0 g of White Petrolatum add 2 mL of ethanol (99.5) and 2 drops of sodium hydroxide solution (1 in 5) saturated with lead (II) oxide, warm the mixture for 10 minutes at about 70°C with frequent shaking, and allow to cool: no dark color is produced.

(6) Organic acids—To 100 mL of dilute ethanol add 1 drop of phenolphthalein TS, and titrate with 0.01 mol/L sodium hydroxide VS, until the color of the solution changes to light red. Mix this solution with 20.0 g of White Petrolatum, and boil for 10 minutes under a reflux condenser. Add 2 to 3 drops of phenolphthalein TS to the mixture and 0.40 mL of 0.1 mol/L sodium hydroxide VS with vigorous shaking: the color of the solution remains red.

(7) Fats and fatty oils or resins—To 10.0 g of White Petrolatum add 50 mL of sodium hydroxide solution (1 in 5), and boil for 30 minutes under a reflux condenser. Cool the mixture, separate the aqueous layer, and filter, if necessary. To the aqueous layer add 200 mL of dilute sulfuric acid: neither oily matter nor precipitate is produced.

Residue on ignition Not more than 0.05% (2 g).

Containers and storage Containers—Tight containers.

Yellow Petrolatum

黄色ワセリン

Yellow Petrolatum is a purified mixture of hydrocarbons obtained from petroleum.

Description Yellow Petrolatum occurs as a yellow, homogeneous, unctuous mass, It is odorless and tasteless.

It is slightly soluble in ethanol (95), and practically insoluble in water.

It dissolves in diethyl ether, in petroleum benzine and in turpentine oil, making a clear liquid or producing slight insoluble substances.

It becomes a yellow, clear liquid with slight fluorescence when warmed.

Melting point 38 - 60°C (Method 3).

Purity (1) Color—Melt Yellow Petrolatum by warming, and pour 5 mL of it into a test tube, and keep the content in a liquid condition: the liquid has no more color than the following control solution, when observed transversely from side against a white background.

Control solution: To 3.8 mL of Ferric Chloride Stock CS add 1.2 mL of Cobaltous Chloride Stock CS.

(2) Acid or alkali—To 35.0 g of Yellow Petrolatum add 100 mL of hot water, shake vigorously for 5 minutes, and then draw off the aqueous layer. Treat the Yellow Petrolatum layer in the same manner using two 50-mL portions of hot water. To the combined aqueous layer add 1 drop of phenolphthalein TS, and boil: no red color is produced. Further add 2 drops of methyl orange TS: no red color is produced.

(3) Heavy metals—Proceed with 1.0 g of Yellow Petrolatum according to Method 2, and perform the test. Prepare the control solution with 3.0 mL of Standard Lead Solution (not more than 30 ppm).

(4) Arsenic—Prepare the test solution with 1.0 g of Yellow Petrolatum, according to Method 3, and perform the test using Apparatus B. Add 10 mL of a solution of magnesium nitrate hexahydrate in ethanol (95) (1 in 50), then add 1.5 mL of hydrogen peroxide (30), and fire to burn (not more than 2 ppm).

(5) Sulfur compound—To 4.0 g of Yellow Petrolatum add 2 mL of ethanol (99.5) and 2 drops of sodium hydroxide solution (1 in 5) saturated with lead (II) oxide, warm the mixture for 10 minutes at about 70°C with frequent shaking, and allow to cool: no dark color is produced.

(6) Organic acids—To 100 mL of dilute ethanol add 1 drop of phenolphthalein TS, and titrate with 0.01 mol/L sodium hydroxide VS, until the color of the solution changes to light red. Mix this solution with 20.0 g of Yellow Petrolatum, and boil for 10 minutes under a reflux condenser. Add 2 to 3 drops of phenolphthalein TS to the mixture and 0.40 mL of 0.1 mol/L sodium hydroxide VS with vigorous shaking: the color of the solution remains red.

(7) Fats and fatty oils or resins—To 10.0 g of Yellow Petrolatum add 50 mL of sodium hydroxide solution (1 in 5), and boil for 30 minutes under a reflux condenser. Cool the mixture, separate the aqueous layer, and filter, if necessary. To the aqueous layer add 200 mL of dilute sulfuric acid: neither oily matter nor precipitate is produced.

Residue on ignition Not more than 0.05% (2 g).

Containers and storage Containers—Tight containers.

Petroleum Benzin

石油ベンジン

Petroleum Benzin is a mixture of low-boiling point hydrocarbons from petroleum.

Description Petroleum Benzin occurs as a colorless, clear, volatile liquid. It shows no fluorescence. It has a chracteristic odor.

It is miscible with ethanol (99.5) and with diethyl ether.

It is practically insoluble in water.

It is very flammable.

Specific gravity d_{20}^{20}: 0.65 - 0.71

Purity (1) Acid—Shake vigorously 10 mL of Petroleum Benzin with 5 mL of water for 2 minutes, and allow to stand: the separated aqueous layer does not change moistened blue litmus paper to red.

(2) Sulfur compounds and reducing substances—To 10 mL of Petroleum Benzin add 2.5 mL of ammonia-ethanol TS and 2 to 3 drops of silver nitrate TS, and warm the mixture at about 50°C for 5 minutes, protected from light: no brown color develops.

(3) Fatty oil and sulfur compounds—Drop and evaporate 10 mL of Petroleum Benzin in small portions on odorless filter paper spread on a previously warmed glass plate: no spot or no foreign odor is perceptible.

English translation of
"Handbook of PHARMACEUTICAL EXCIPIENTS" Third Edition

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"Gelation Hydrocarbon" 109105

[English Name] Hydrocarbon Gel
[Other Name] Plastibase (120012), Poloid (105483)
[Reference] Standard of Pharmaceutical Excipients
[Description]

This product is olorless or pale yellowish translucence ointment, and is obtained from liquid paraffin by gelated with 5 to 10% of polyethylene.

Having no smell, or a characteristic odor with no taste.

Insoluble in water or ethanol.

Soluble in ether or xylene with muddy.

[Reference Description]

IR (film): 2910, 2850, 1460, 1380 and 720 cm^{-1}

Relative density: d^{20}_{20}: about 0.88

Acid and base: within the limits

Heavy metal: < 10ppm

As (Arsenic): < 2ppm

Liquid paraffin: < 0.2%

[Storage condition]

Airtight container

[Application]

Ointment base

[Route of administration/Maximum quantity]

General external preparation: 990.5mg/g,

Dental surgery and for the application to mouth: adequate dose,

For application to intestinum rectum or vagina: 3g

[Trade Name]

Gelation Hydrocarbon (Maruishi Pharmaceutical Co., Ltd., Bristol-Myer-Squibb / Importer: Sankyo Co., Ltd.)

Handbook of

PHARMACEUTICAL EXCIPIENTS

Third Edition

医薬品添加物ハンドブック

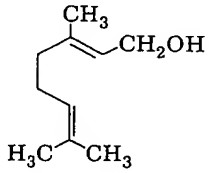
永井恒司　監修
日本医薬品添加剤協会　訳編

薬事日報社

ゲラニオール

102490

【英名】 Geraniol
【別名】 Lemonol
【化学名】 (E)-3,7-Dimethyl-2,6-octadien-1-ol；2,6-Dimethyl-2,6-octadien-8-ol
【構造】



$C_{10}H_{18}O$：154.25
【参考文献】 薬添規，食添，粧原基，CAS No.106-24-1
【概要】 無色～淡黄色澄明の液．特異なにおいがある．エタノール又はエーテルと混和し，水にほとんど溶けない．
【参考規格】 含量 85.0%以上．屈折率 n_D^{20}：1.469～1.478．比重 d_{20}^{20}：0.870～0.885．酸価 1.0以下．エステル価 6.0以下．ただし，約 5g を用いる．重金属 10ppm 以下．アルデヒド類 5g．0.5mol/L 塩酸消費量 1.5mL 以下
【貯法】 気密容器
【用途】 清涼化剤，溶解補助剤，着香剤・香料，基剤
【投与経路・最大使用量】 経皮 0.01mg/g，眼科用剤 0.05mg/mL．
【商品名（メーカー）】 ゲラニオール(小川香料，曽田香料，高砂香料工業，豊玉香料，長谷川香料)

ゲラニオール変性アルコール（95vol%）

120003

【英名】 Geraniol Denatured Alcohol（95vol%）
【参考文献】 薬添規，アルコール専売法
【概要】 政府専売合成アルコール含水(95vol%)200Lにつき，ゲラニオール 200g を加えて変性したもの．無色澄明な液．特異なにおいがある．水又はエーテルと混和する．燃えやすく，点火するとき，淡青色の炎をあげて燃える．揮発性である．
【参考規格】 含量 エタノール95.13～95.88vol%(15℃，比重法)．比重 d_{15}^{15}：0.813～0.816．溶状 ほとんど澄明(10mL，水30mL，5～10℃で30分間放置)．酸又はアルカリ，塩化物，フーゼル油及び類似不純物，アルデヒド又はその他の還元性物質，揮発性混在物 いずれも限度内．重金属 1.2ppm 以下．
【貯法】 遮光した気密容器に入れ，火気を避けて保存する．
【用途】 溶剤，溶解剤
【投与経路・最大使用量】 一般外用剤 600μL/mL．
【商品名(メーカー)】 ゲラニオール変性アルコール(95vol%)（通産省専売アルコール指定業者）

ゲラニオール変性アルコール（99vol%）

120004

【英名】 Geraniol Denatured Alcohol（99vol%）
【参考文献】 薬添規，アルコール専売法
【概要】 政府専売合成アルコール無水(99.5vol%)200Lにつき，ゲラニオール 200g を加えて変性したもの．無色澄明な液．特異なにおいがある．水又はエーテルと混和する．燃えやすく，点火するとき，淡青色の炎をあげて燃える．揮発性である．
【参考規格】 含量 エタノール99.05～99.86vol%(15℃，比重法)．比重 d_{15}^{15}：0.794～0.799．溶状 ほとんど澄明(10mL，水30mL，5～10℃で30分間放置)．酸又はアルカリ，塩化物，フーゼル油及び類似不純物，アルデヒド又はその他の還元性物質，揮発性混在物 いずれも限度内．重金属 1.2ppm 以下．
【貯法】 遮光した気密容器に入れ，火気を避けて保存する．
【用途】 溶剤，溶解剤
【投与経路・最大使用量】 一般外用剤 650μL/mL．
【商品名(メーカー)】 ゲラニオール変性アルコール(99vol%)（通産省専売アルコール指定業者）

ゲル化炭化水素

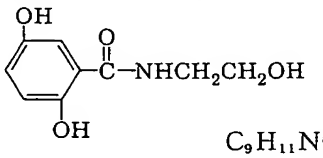
109105

【英名】 Hydrocarbon Gel
【別名】 プラスチベース(120012)，ポロイド(105483)
【参考文献】 薬添規
【概要】 無色～微黄色半透明の軟膏よう物質．流動パラフィン（日局）を5～10%に相当する量のポリエチレンでゲル化したもの．においはないか，又は

わずかに特異なにおいがあり，味はない．水又はエタノールにほとんど溶けない．エーテル又はキシレンに混濁して溶ける．
【参考規格】 赤外吸収スペクトル（薄膜法）2910 cm^{-1}, 2850cm^{-1}, 1460cm^{-1}, 1380cm^{-1}及び720cm^{-1}付近．比重 d_{20}^{20}：約0.88．酸又はアルカリ 限度内．重金属 10ppm 以下．ヒ素 2ppm 以下．遊離流動パラフィン 0.2%以下．
【貯法】 気密容器
【用途】 基剤
【投与経路・最大使用量】 一般外用剤 999.5mg/g，歯科外用及び口中用 適量，直腸膣尿道適用 3g．
【商品名（メーカー）】 ゲル化炭化水素（丸石製薬，ブリストル・マイヤーズスクイブ）（輸入取扱：三共）

ゲンチジン酸エタノールアミド

108178

【英名】 Gentisylethanolamide
【構造】 
$C_9H_{11}NO_4$：197.19
【参考文献】 薬添規
【概要】 白色の粉末．においはなく，味は苦い．水，メタノール又はエタノールに溶けやすく，ピリジン又はエーテルに溶けにくい．水溶液（1→20）のpH3.5～4.5．
【参考規格】 含量 乾燥後，98.0%以上．紫外吸収スペクトル 極大波長 326～330nm：メタノール溶液（1→50000）．融点：148～151℃．溶状 1.0g，水 100mL，淡黄色澄明．重金属 10ppm 以下．ヒ素 2ppm 以下．乾燥減量 0.5%以下（1g，105℃，4時間）．強熱残分 0.10%以下（1g）．
【貯法】 密閉容器
【用途】 防腐剤
【投与経路・最大使用量】 静脈内注射 100mg．
【商品名（メーカー）】 ゲンチジン酸エタノールアミド（小林香料，ローヌ・プーラン・ジャパン，第一化学薬品）

ゲンマイコウジ

102475

【概要】 類黄褐色．柔らかい米粒状．特異なにおいがあり，味は甘い．
【貯法】 密閉容器
【用途】 賦形剤
【投与経路・最大使用量】 経口投与 2.08g．

【コ】

高果糖液糖

120259

【英名】 High Fructose Syrup
【参考文献】 薬添規
【概要】 トウモロコシデンプンなどのデンプンを加水分解して得た主としてブドウ糖からなる液糖に，グルコースイソメラーゼを作用させて異性化し，イオン交換樹脂を用いて分離，濃縮して得た果糖を主成分とする液糖．無色～微黄色の澄明な粘性の液．においはなく，味は甘い．水又はエタノールと混和し，エーテルにほとんど溶けない．水溶液（1→10）は左旋性．pH 3.5～5.5（10.0g，水20mL）．
【参考規格】 含量（乾燥物換算）果糖90.0%以上．溶状 25.0g，水で50mL，澄明．酸 限度内．塩化物 0.018%以下．硫酸塩 0.024%以下．重金属 4ppm 以下．ヒ素 1ppm 以下．溶性デンプン又は亜硫酸塩 限度内．類縁物質 10%以下（HPLC）．乾燥減量 25.0%以下（1g，90℃，13.3kPa で45分間，2.7kPa 以下で3時間）．強熱残分 0.10%以下（2g）．
【貯法】 気密容器
【用途】 甘味剤
【投与経路・最大使用量】 経口投与 11g．
【商品名（メーカー）】 サンフラクト900（参松工業），高果糖液糖（日本食品化工）

硬化油

002130

【英名】 Hydrogenated Oil
【別名】 Hydrogenated Castor Oil NF
【参考文献】 日局
【概要】 白色の塊又は粉末．魚油又は他の動物性，

ISBN4-8408-0664-0

C3047 ¥25000E

定価　本体25,000円(税別)

9784840806640

1923047250001

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